ABSTRACT OF THE DISCLOSURE

The present invention is based on the development of a dual promoter system (preferably a RNA pol I -pol II system) for the efficient intracellular synthesis of viral RNA. The resultant minimal plasmid-based system may be used to synthesize any RNA virus, preferably viruses with a negative single stranded RNA genome. The viral product of the system is produced when the plasmids of the system are introduced into a suitable host cell. One application of the system is production of attenuated, reassortant influenza viruses for use as antigens in vaccines. The reassortant viruses generated by cotransfection of plasmids may comprise genes encoding the surface glycoproteins hemagglutinin and neuraminidase from an influenza virus currently infecting the population and the internal genes from an attenuated influenza virus. An advantageous property of the present invention is its versatility; the system may be quickly and easily adapted to synthesize an attenuated version of any RNA virus. Attenuated or inactivated RNA viruses produced by the present invention may be administered to a patient in need of vaccination by any of several routes including intranasally or intramuscularly.